

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A composition comprising a therapeutically effective amount of a thermally processed plant material that includes one or more phytochemical agents capable of inhibiting at least one of enzymatic and transcriptional activity to inhibit inflammation in a mammal, wherein the one or more phytochemical agents is selected from the group consisting of sesquiterpene lactones, prebiotic fibers, dietary agents, and combinations thereof, and wherein the plant material comprises an amount from at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprises a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof.

Claim 2 (canceled):

Claim 3 (original): The composition according to claim 1, wherein the plant material contains an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 4 (currently amended): The composition according to claim 1, wherein the plant material is ~~derived from an *Asteraceae* plant family~~ selected from the group consisting of chicory, lettuce, coffee, soja, Jerusalem artichoke, leek, onion, yacon, asparagus, extracts thereof and combinations thereof.

Claim 5 (canceled):

Claim 6 (original): The composition according to claim 1, wherein the plant material comprises a chicory extract.

Claim 7 (canceled):

Claim 8 (previously presented): The composition according to claim 1, wherein one or more of the phytochemical agents are capable of inhibiting at least one of enzymatic activity derived from cyclooxygenase and transcriptional activity derived from NF- $\kappa$ B.

Claim 9 (canceled):

Claim 10 (original): The composition according to claim 1, wherein the plant material that is thermally processed includes an extruded plant material.

Claim 11 (previously presented): A composition comprising a therapeutically effective amount of a thermally processed plant material that includes one or more phytochemical agents capable of inhibiting at least one of enzymatic and transcriptional activity to treat inflammation in a mammal wherein the phytochemical agents include an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone and wherein the plant material comprises an amount from at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprises a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof.

Claim 12-13 (canceled):

Claim 14 (original): The composition according to claim 11, wherein the plant material comprises a chicory extract.

Claim 15 (canceled):

Claim 16 (previously presented): The composition according to claim 11, wherein one or more of the phytochemical agents are capable of inhibiting at least one of enzymatic activity derived from cyclooxygenase and transcriptional activity derived from NF- $\kappa$ B.

Claim 17 (canceled):

Claim 18 (original): The composition according to claim 11, wherein the thermally processed plant material includes an extruded plant material.

Claim 19-22 (canceled):

Claim 23 (withdrawn): A pet food product comprising: a starch matrix; and a therapeutically effective amount of a thermally processed plant material comprising a phytochemical agent capable of inhibiting at least one of enzyme and transcriptional activity in a mammal to reduce risk of inflammation.

Claim 24 (withdrawn): The pet food product of claim 23 wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 25 (withdrawn): The pet food of claim 23 wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 26 (withdrawn): A pet food product comprising a plant material that includes an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone derived from a thermally processed plant material selected from the group consisting of a plant associated with an *Asteraceae* plant, chicory, lettuce, coffee, soja, extracts thereof pulps thereof, and combinations thereof in an effective amount to prevent or reduce inflammation.

Claim 27 (withdrawn): A process for preparing a nutritional food product capable of reducing a risk of incidence of inflammation in a mammal, the process comprising the steps of: providing a plant material; processing the plant material to form a plant extract including one or more phytochemical agents capable of inhibiting at least one enzyme activity and transcriptional

activity in the mammal; and processing the plant extract and one or more food ingredients to form the nutritional food product that includes at least 0.5% by weight of the plant extract.

Claim 28 (withdrawn): The process of claim 27, wherein the plant material is thermally processed, to provide an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 29 (withdrawn): The process of claim 27, wherein the plant material is extruded.

Claim 30 (withdrawn): The process of claim 27, wherein the plant material is derived from a plant extract selected from the group consisting of an *Asteraceae* plant coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 31 (withdrawn): The process of claim 27, wherein the plant extract is processed by defatting the plant material to form a first plant extract and subsequently processing the first plant extract with ethyl acetate via acid hydrolysis to form the plant extract.

Claim 32 (withdrawn): The process of claim 27, wherein the plant extract further includes a dietary agent selected from the group consisting of antioxidants, glucosamine, omega-3 fatty acids and combinations thereof.

Claim 33 (withdrawn): A method of reducing a risk of inflammation in a mammal at risk of inflammation, the method comprising administering to the mammal a thermally processed and therapeutically effective amount of a composition that contains a plant material including a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 34 (withdrawn): The method according to claims 33, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 35 (withdrawn): The method according to claim 33, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 36 (withdrawn): The method according to claim 33, wherein the plant material comprises a plant extract derived from chicory.

Claim 37 (withdrawn): The method according to claim 33, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 38 (withdrawn): The method according to claim 33, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 39 (withdrawn): A method for reducing a risk of osteoarthritis in a mammal at risk of osteoarthritis, the method comprising administering to the mammal a therapeutically effective amount of a composition including a thermally processed plant material that contains a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 40 (withdrawn): The method according to claims 39, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 41 (withdrawn): The method according to claim 39, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 42 (withdrawn): The method according to claim 39, wherein the plant material comprises a plant extract derived from chicory.

Claim 43 (withdrawn): The method according to claim 39, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 44 (withdrawn): The method according to claim 39, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 45 (withdrawn): A method for reducing a risk of an autoimmune disease in a mammal at risk of the autoimmune disease, the method comprising administering to the mammal a therapeutically effective amount of a composition including a thermally processed plant material that contains a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 46 (withdrawn): The method according to claims 45, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 47 (withdrawn): The method according to claim 45, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 48 (withdrawn): The method according to claim 45, wherein the plant material comprises a plant extract derived from chicory.

Claim 49 (withdrawn): The method according to claim 45, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 50 (withdrawn): The method according to claim 45, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 51 (withdrawn): A method for reducing a risk of cancer in a mammal at risk of cancer, the method comprising administering to the mammal a therapeutically effective amount of a composition including a thermally processed plant material that contains a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 52 (withdrawn): The method according to claim 51, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 53 (withdrawn): The method according to claim 51, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 54 (withdrawn): The method according to claim 51, wherein the plant material comprises a plant extract derived from chicory.

Claim 55 (withdrawn): The method according to claim 51, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 56 (withdrawn): The method according to claim 51, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed

and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 57 (withdrawn): A method for inhibiting COX-2 activity in a mammal, the method comprising administering to the mammal a composition including a therapeutically effective amount of  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 58 (withdrawn): The method according to claim 57 wherein the composition is capable of reducing at least one of a risk of inflammation, osteoarthritis, autoimmune disease and cancer in the mammal.

Claim 59 (withdrawn): The method according to claim 57 wherein the composition is selected from the group consisting of a nutritional composition, a pharmaceutical and combinations thereof.

Claim 60 (withdrawn): The method according to claim 57 wherein the composition includes an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 61 (withdrawn): The method according to claim 57 wherein the active fragment is contained in a plant extract.

Claim 62 (withdrawn): The method according to claim 57 wherein the plant extract is derived from a thermally processed plant material selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.



Claim 63 (previously presented): A composition comprising an active fragment derived from a thermally processed plant material, the active fragment including  $\alpha$ -methylene- $\gamma$ -butyrolactone wherein the active fragment in an effective amount is capable of inhibiting at least one of enzyme and transcriptional activity to inhibit inflammation, wherein the plant material comprises an amount from at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprises a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof.

Claim 64 (previously presented): The composition according to claim 63, wherein the active fragment is capable of inhibiting at least one of enzymatic activity derived from cyclooxygenase and transcriptional activity derived from NF- $\kappa$ B.